

## **REMARKS**

In response to the Office Action dated August 1, 2006, Applicants respectfully request reconsideration based on the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance.

Applicants appreciate the detailed examination evidenced by the Office Action. Applicants respectfully submit that Claims 1-35 are presently pending in the application and are patentable over the cited references for at least the following reasons.

### **Telephonic Interview Summary**

On September 26, 2006, the Examiner Azemar granted Applicants' representative, Timothy J. Wall, a telephonic interview to discuss the rejections of the claims in the Official Action mailed August 1, 2006. Applicants' representative presented remarks as to distinctions between Applicants' disclosure and the cited references. Examiner Azemar did not disagree that the U.S. Published Patent Application 2002/0184644 to Lund et al., published December 5, 2002, does not disclose optical signals being delivered directly to subscriber premises, as recited in, for example, dependent Claim 9. Examiner Azemar indicated that he would like to review Applicants' points further in the form of a written response.

Applicants respectfully appreciate Examiner Azemar's assistance in discussing the rejections and efforts to advance the prosecution in the present application. This summary represents the content of the Examiner Interview Summary filed under MPEP §713.04 on October 4, 2006.

### **Independent Claims 1 and 24 are patentable**

In light of the Examiner Interview, Applicants have reviewed the references cited in the Office Action and provide the foregoing discussion as to the patentability of Claims 1 and 24. The Office Action rejects Claims 1 and 24 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0071149 to Xu et al. ("Xu"). Applicants respectfully traverse the rejection on the basis that Xu does not disclose or suggest all elements of Claims 1 and 24. For example, Claim 1 recites:

A telecommunications system, comprising:

a passive optical network (PON) including an optical splitter configured to serve optical network terminations (ONTs) at respective ones of ***a plurality of subscriber premises***; and  
an optical network unit (ONU) coupled to the PON and configured to provide communications for ***the plurality of the subscriber premises***.

(*Emphasis added.*) In rejecting Claims 1 and 24, the Office Action states that:

[a]s shown in figure 1, Xu et al. discloses a telecommunications system comprising: a passive optical network (1 in figure 1) including an optical splitter configured to serve optical network terminations at respective ones of a plurality of subscriber premises (103 in figure 1, "xDSL Modem" in figure 1 as a type of network termination); and an optical network unit (ONU) coupled to the PON and configured to provide communications for the plurality of the subscriber premises (figure 1).

Office Action, p. 2. Applicants respectfully disagree. The Office Action parenthetically indicates that the xDSL Modem in Xu discloses "an optical splitter configured to serve optical network terminations at respective ones of a plurality of subscriber premises." Applicants note that, in contrast with the assertion in the Office Action, the xDSL Modem 103 does not provide optical network terminations. The xDSL modem 103 appears to be a conductive (e.g., twisted pair) electrical termination and not an optical termination.

Additionally, Xu does not disclose that optical terminations served by an optical splitter and communications provided by an optical network unit are provided to "the plurality of subscriber premises." While Xu may illustrate providing electrically conductive communications to a first subscriber premises using, for example, an xDSL modem and providing optical terminations to an optical network unit located in a second subscriber premises, Xu does not disclose or suggest "optical network terminations (ONTs) at respective ones of ***a plurality of subscriber premises***" and "an optical network unit (ONU) ... configured to provide communications for ***the plurality of the subscriber premises***." Accordingly, Xu does not disclose or suggest all of the recitations of Claim 1 and, for at least these reasons, Applicants respectfully submit that Claim 1 is patentable over Xu.

The Office Action rejects Claim 24 under the same rationale as Claim 1. Applicants respectfully submit that Claim 24 includes similar recitations as Claim 1 and is patentable over Xu for at least the reasons discussed above regarding Claim 1. Accordingly, Applicants respectfully request the allowance of Claims 1 and 24.

**Claim 21 is patentable**

The Office Action rejects Claim 21 under 35 U.S.C. §103(a) as being unpatentable over Xu in view of U.S. Patent No. 5,349,457 to Bears ("Bears"). Applicants respectfully traverse this rejection on the basis that neither Xu, nor Bears, nor the combination thereof, disclose or suggest the recitations of Claim 21. For example, Claim 21 recites:

A telecommunications apparatus, comprising:  
an optical splitter configured to interface a first fiber of a PON to a plurality of second fibers; and  
*an ONU co-located with the optical splitter*, connected to one of the second optical fibers and configured to interface a plurality of conductive circuits to the one of the second fibers.

(*Emphasis added.*) In rejecting Claim 21, the Office Action states that:

Xu et al. teaches a telecommunications apparatus comprising: an optical splitter configured to interface a first fiber of a PON to a plurality of second fibers (109, 303, 101 in figure 2); and ONU and splitter, connected to one of the second optical fibers and configured to interface a plurality of conductive coils to one of the second fibers (see figure 4). However Xu et al. does not teach an ONU co-located with a splitter. Bears teaches an ONU co-located with a splitter.

Office Action, p. 10. Applicants respectfully disagree. Bears discusses that "the ONU would be located at the curb pedestal near the subscriber premises" and that "passive optical splitters may be located on the single mode fiber distribution trunk which ends at an active curb pedestal." Bears, column 4, lines 36-38, lines 44-46. Applicants note that "optical splitters may be located on the single fiber distribution trunk" does not disclose or suggest an optical splitter located at the curb pedestal and therefore does not disclose or suggest that an ONU is co-located with the optical splitter, as recited in Claim 21. Applicants respectfully submit that Claim 21 includes recitations not disclosed or suggested by Xu and/or Bears and is patentable for at least these reasons. Accordingly, Applicants respectfully request the allowance of Claim 21.

**The dependent claims are patentable**

Applicants submit that dependent Claims 2-20, 22, 23, and 25-35 are patentable at least by virtue of the patentability of the respective ones of independent Claims 1, 21, and 24

from which they depend. Applicants further submit that several of the dependent claims are separately patentable.

Regarding Claim 9, as discussed with the Examiner during the telephonic interview, the cited portions of Lund at 56a-56n are not directed at subscriber premises as recited in Claim 9. Specifically, Lund states, in paragraph 0013, that "it is contemplated that additional optical splitters (see reference number 61a) will exist in the system even at secondary (and deeper) levels toward supporting even further subscribers on each OLT branch via fiber optic cables 56a through 56n." Thus, 56a through 56n refer to fiber optic cables configured to support additional optical splitters and are not configured to "directly serve a customer premises," as recited in Claim 9. For at least these reasons, Applicants respectfully submit that Claim 9 is separately patentable over the cited references.

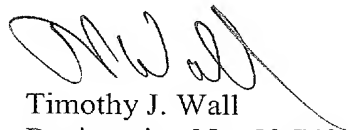
Applicants respectfully submit that Claim 29 was rejected using the same rationale as the rejection of Claim 9 and is separately patentable for the reasons discussed above regarding Claim 9. Applicants will refrain from presenting arguments regarding other of the dependent claims in this communication for the sake of brevity and reserve the right to present such arguments in future communications, if necessary.

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### **Conclusion**

As all of the claims are now in condition for allowance, Applicants respectfully request allowance of the claims and passing of the application to issue in due course. Applicants urge the Examiner to contact Applicants' undersigned representative at (919) 854-1400 to resolve any remaining formal issues.

Respectfully submitted,

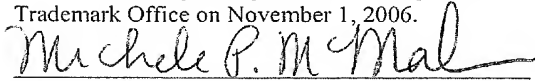


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### **CERTIFICATION OF ELECTRONIC TRANSMISSION**

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